CLAIMS:

1. A method for producing bent snowmobile studs, the method comprising:

- providing a stud having a head and substantially straight shank;
- providing a head engagement member for holding the head relative to the shank;
- providing a shank engagement member for contacting the shank;
- engaging the stud head with the head engagement member;
- engaging the shank with the shank engagement member; and
- mechanically moving the head engagement member and the shank engagement member with respect to one another such that the shank is bent.

2. The method of claim 1 wherein the bent shank defines proximal and distal axes, the proximal and distal axes forming an angle between about 15° and 30°.

3. The method of claim 2 wherein the proximal and distal axes form an angle between about 20° and 25°.

4. The method of claim 1 wherein the shank includes threads and wherein the threads remain useful after bending.

5. The method of claim 1 wherein multiple studs are provided and the head engagement member engages multiple heads, the shank engagement member engages multiple shanks and multiple shanks are bent when the head engagement member is moved with respect to the shank engagement member.

6. The method of claim 1 wherein the head engagement member is fixed and the shank engagement member is movable with respect to the head engagement member.

7. An apparatus for producing a bent snowmobile stud, the stud having a head and a shank, the shank including proximal and distal axes, the apparatus comprising:

- a head engagement member for holding the head relative to the shank;
- a shank engagement member for contacting the shank;
- a support for positioning the shank engagement member with respect to the head engagement member; and
- a drive mechanism for moving the support through a course of movement, the shank engagement member engaging and bending the shank during the course of movement.

8. The apparatus of claim 7 wherein the shank is bent such that the proximal and distal axes form an angle between about 15° and 30°.

9. The apparatus of claim 8 wherein the shank is bent such that the proximal and distal axes form an angle between about 20° and 25°.

10. The apparatus of claim 7 wherein the head engagement member engages multiple heads, the shank engagement member engages multiple shanks and multiple shanks are bent when the drive mechanism moves the support through the course of movement.

11. The apparatus of claim 7 wherein the drive mechanism includes a die press and the support includes a sliding block slidingly connected with respect to the die press, a pivoting block pivotably connected with respect to the sliding block, the shank engagement member connected with respect to the pivoting block, and a wheel rotatably attached with respect to the pivoting block, and further including an incline for contacting the wheel to cause the pivoting block to pivot and the shank engagement member to bend the shank.

12. The apparatus of claim 11 wherein the head engagement member engages multiple heads, the shank engagement member includes channels aligned with multiple shanks, the shank engagement member is positioned such that the channels receive the shanks when the die press lowers the sliding block, the sliding block slides with respect to the die press after the sliding block contacts a fixed member, the incline continues to be lowered by the die press and contacts the wheel causing the pivoting block and shank engagement member to pivot and to bend the shanks.

13. The apparatus of claim 7 wherein the head engagement member includes a cavity for receiving the head and a slot for allowing the shank to pass out of the head engagement member.

14. A bent stud produced by the method of claim 1.

15. The bent stud of claim 14 wherein the bent stud is one of multiple bent studs produced by mechanically moving the head engagement member and the shank engagement member with respect to one another a single time.

16. The bent stud of claim 14 used in an assembly comprising:

- an endless track having an interior side and an exterior side and a bore passing therebetween, the bore defining a bore axis substantially perpendicular to the track adjacent the bore, the shank extending through the bore and having a proximal portion defining a proximal axis substantially coincident with the bore axis and a distal portion defining a distal axis forming an angle greater than about 5° with the proximal axis; the head having a contact surface engaging the interior side of the track; and
- a fastener attached to the distal portion of the shank such that rotation of the shank about the proximal axis is prevented, the fastener contacting the track such that axial movement of the shank with respect to the track is prevented.

17. The bent stud of claim 16 wherein the fastener includes a leading surface and the assembly further comprises a torque-absorbing spacer having top and bottom surfaces and an aperture therebetween receiving the shank, the top and bottom surfaces forming an angle substantially equal to the angle formed by the proximal and distal axes, the torque-absorbing spacer positioned between the fastener and the track such that the leading surface of the fastener engages the top surface of the torque-absorbing spacer.

18. The bent stud of claim 17 wherein the assembly further comprises a backer plate having top and bottom faces and a hole therebetween receiving the shank, the backer plate positioned between the spacer and the track such that the top face engages the bottom surface of the torque-absorbing spacer and the bottom face engages the exterior side of the track.

19. The bent stud of claim 16 wherein the shank and fastener include reciprocal threads.

20. The bent stud of claim 16 wherein the fastener is a self-locking nut.